FORATOM
for nuclear energy in Europe

# Position Paper on Nuclear Energy's Contribution to a post-2012 Climate Policy

In developing a post-2012 climate framework, it is essential to take into account the valuable contribution that nuclear energy makes to the avoidance of greenhouse gas (GHG) emissions. Nuclear is therefore an important tool – among many – that can be used to reduce GHG emissions. All available options, including nuclear energy, should be supported in the international effort to reduce the threat of global warming.

FORATOM, as the voice of the nuclear industry in Europe, makes the following main points in view of the upcoming discussions on a 'post-2012' international climate regime. FORATOM believes that:

* When addressing climate change, we encourage policy-makers to consider zero and low-carbon power generation technologies, including nuclear energy.

* The nuclear power sector can play an even greater role in (GHG) abatement through the construction of new nuclear plants, plant lifetime extensions and plant upgrades. The Intergovernmental Panel on Climate Change (IPCC) believes that nuclear should continue to play an important role in the overall effort to curb greenhouse gas emissions in the decades to come[1].

* Nuclear energy should not be penalised in policy mechanisms designed to help address climate change, as it has been in CDM and JI projects and the EU's Linking Directive. All technologies that can help fulfil the purpose of the CDM and JI, as defined in the protocol, should be eligible for use in those flexible mechanisms.

* Nationally appropriate mitigation actions (NAMAs) should incorporate the development and diffusion of low-carbon power generation technologies, including nuclear energy, renewables, carbon capture and sequestration and energy efficiency.

* The time frame of policy cycles concerning climate change do not coincide with that of the energy sector in which an investment decision is made on a mid- to long-term basis. Current obligations under the Kyoto Protocol and EU Emissions Trading Scheme are limited to the 2008-2012 period. The absence of certainty regarding future obligations after 2012 could create excessive commercial risks. A long-term view must be maintained.

* If emissions trading is to be used as a policy measure to address climate change then emissions trading schemes must be structured in a way that provides the long-term certainty that will encourage the use of low-carbon technologies, such as nuclear power, as emissions reduction options.

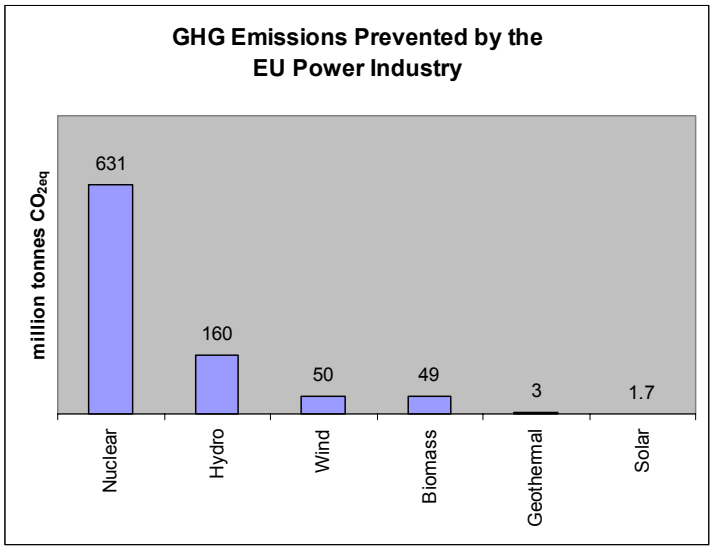
[1] IPCC Fourth Assessment Report (2007) – Work Group III Report "Mitigation of Climate Change".

* All countries have the sovereign right to determine their own development paths and technology needs. They should retain the freedom to choose nuclear as part of their development strategies, without their choices being constrained by an international agreement. Already more than 50% of the world's population live in countries with nuclear power plants.

* Global climate change causes serious anxiety among European citizens; 50% of them feel that it is amongst the most serious problems facing the world[2].

**Nuclear Energy and Greenhouse Gas Emissions Avoidance**

The current use of nuclear energy (accounting for about 15% of the world's electricity generation) avoids the emission of about 2.1 billion tonnes of $CO_{2eq}$ every year. In the EU as whole, the avoidance levels amount to 631 million tonnes of $CO_{2eq}$ per year, taking into account the current energy mix. By comparison, the EU has a greenhouse gas (GHG) emission reduction target of 446 million tonnes of $CO_{2eq}$ equivalent below 1990 levels by 2008-2012. To put figure into perspective, it can be pointed out that the annual amount of $CO_{2eq}$ avoided by nuclear in the EU is equivalent to nearly all the $CO_{2eq}$ emissions from all sectors in United Kingdom in 2007 (636.6 million tonnes).




*Source: Emissions avoided in 2007 calculated using fossil fuel-emission rates from the IEA, IAEA and WEC and plant generation data from Eurostat.*

Furthermore, nuclear power plants generate electricity with hardly any emission of sulphur dioxide or nitrogen oxides, key agents for acid rain and photochemical air pollution. Thanks to nuclear, emissions of about 4.8 million tonnes of sulphur dioxide and 2.6 million tonnes of nitrogen oxides are avoided each year in the EU.

We need to build upon the current contribution of nuclear energy to meet our environmental objectives. We should maximise the utilisation of our existing nuclear capacity and build new nuclear power plants to meet the significant demand for new capacity that will occur over the next few decades.

**Conclusion**

Nuclear power makes a major contribution limiting the increase in greenhouse gas concentrations in the power generation sector, while facilitating access to abundant electricity at a stable and low cost. Any future climate change agreements and policies should establish a framework that enables the use of the nuclear generation option as part of the energy mix

[2] Special Eurobarometer 313: "Europeans' attitudes towards climate change" (2009).